

Applicant Name	Beaverhead Conservation District
Project Name	Big Hole Ditch Improvement Project

Project Abstract

The purpose of this project is to upgrade Big Hole Ditch and associated irrigation infrastructure. The ditch diverts water from the Big Hole River, an important fishery and a natural and recreational resource in the region. Rock Creek is also intercepted by the ditch.

Big Hole Ditch was constructed in 1918. In the 1960s, Interstate 15 was constructed over and along this ditch. Relocating the ditch is not feasible since it must pass through a 378-foot-long, 42-inch concrete culvert beneath the interstate. In addition, the point of diversion for this ditch has been stable for many decades. Therefore, any changes to that site are not recommended.

Major facilities at Big Hole Ditch include flow control headgates, a flow measurement flume, and excess flow spillways. The control structures are wood timber construction and are approximately 50 years old. Commensurate with their age, the structures are deteriorating to the point where failure may occur if the system is stressed during high water.

Other operational issues with the ditch include:

- Difficulty in controlling fish migration to and from the ditch;
- Lack of control of Rock Creek water;
- Inability to completely dry the ditch for maintenance; and
- Steep embankment near the Big Hole River susceptible to failure.

This project proposes to remedy current operational issues by replacing aging infrastructure and by performing other modifications which will reduce failure risk. When completed, the improvements will allow more effective ditch maintenance and operation.

Additional benefits of completion include:

- Fish passage to the Big Hole River when the ditch is drained;
- Protection of the Big Hole River from embankment failure and resultant sediment load to the river; and
- Enhancement of public safety to recreational users on the Big Hole River.